

WHAT IS CLAIMED IS:

1. A transmitting/receiving module comprising:
a first amplifier which amplifies a transmission signal;
5 a second amplifier which amplifies a receiving signal; and
a low reflection limiter provided on an input side of said
second amplifier.
2. A transmitting/receiving module according to claim 1,
10 wherein the transmission signal is radiated into an air from a
radiator externally arranged in association with the
transmitting/receiving module and the receiving signal is received
by the radiator.
- 15 3. A transmitting/receiving module according to claim 1,
further comprising a circulator having a first terminal, a second
terminal and a third terminal, wherein the transmission signal is
inputted to the first terminal, the receiving signal is received
through the second terminal, the third terminal is connected to the
20 second amplifier, and the low reflection limiter is provided between
the circulator and the second amplifier.
4. A transmitting/receiving module according to claim 1,
wherein said low reflection limiter comprises a limiter diode and a
25 resistor, which are connected in series with each other.

5. A transmitting/receiving module according to claim 1,
wherein said low reflection limiter comprises a plurality of series
connection circuits, each of which comprises a limiter diode and a
resistor connected in series with each other, and at least one
5 quarter-wavelength line provided between adjacent two series
connection circuits of said plurality of series connection circuits.

6. A transmitting/receiving module according to claim 1,
wherein said low reflection limiter comprises a first directional
10 coupler, said first directional coupler having a first terminal into
which the receiving signal is inputted, a second terminal connected
to a terminating resistor, a third terminal connected to a first
limiter diode, and a fourth terminal connected to a second limiter
diode.

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7. A transmitting/receiving module according to claim 6,
further comprising a second directional coupler, said second
directional coupler having a first terminal connected to the first
limiter diode, a second terminal connected to the second limiter
20 diode, a third terminal connected to the second amplifier, and a
fourth terminal connected to a terminating resistor.

8. A transmitting/receiving module comprising:
a first amplifier which amplifies a transmission signal;
25 a second amplifier which amplifies a receiving signal;
a low reflection limiter provided on an input side of said

second amplifier, in which the transmission signal is radiated into an air from a radiator externally arranged in association with the transmitting/receiving module and the receiving signal is received by the radiator; and

5 a circulator having a first terminal, a second terminal and a third terminal,

 wherein the transmission signal is inputted to the first terminal, the receiving signal is received by the radiator connected to the second terminal, the third terminal is connected to the
10 second amplifier, and the low reflection limiter is provided between the circulator and the second amplifier.

9. A transmitting/receiving module according to claim 8, wherein said low reflection limiter comprises a limiter diode and a
15 resistor, which are connected in series with each other.

10. A transmitting/receiving module according to claim 8, wherein said low reflection limiter comprises a plurality of series connection circuits, each of which comprises a limiter diode and a
20 resistor connected in series with each other, and at least one quarter-wavelength line provided between adjacent two series connection circuits of said plurality of series connection circuits.

11. A transmitting/receiving module according to claim 8,
25 wherein said low reflection limiter comprises a first directional coupler, said first directional coupler having a first terminal into

which the receiving signal is inputted, a second terminal connected to a terminating resistor, a third terminal connected to a first limiter diode, and a fourth terminal connected to a second limiter diode.

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12. A transmitting/receiving module according to claim 11, further comprising a second directional coupler, said second directional coupler having a first terminal connected to the first limiter diode, a second terminal connected to the second limiter
10 diode, a third terminal connected to the second amplifier, and a fourth terminal connected to a terminating resistor.

13. A transmitting/receiving module comprising:

a first amplifier which amplifies a transmission signal;

15 a circulator having a first terminal to which the transmission signal is inputted, a second terminal connected to a radiator, which is externally arranged in association with the transmitting/receiving module, and a third terminal to which the receiving signal received by the radiator is inputted;

20 a first directional coupler having a first terminal connected to the third terminal of the circulator, a second terminal connected to a terminating resistor, a third terminal connected to a first limiter diode, and a fourth terminal connected to a second limiter diode.

25 a second amplifier connected to the first limiter diode for amplifying the receiving signal;

a third amplifier connected to the second limiter diode for amplifying the receiving signal; and

a second directional coupler having a first terminal connected to the second amplifier, a second terminal connected to the third amplifier, a third terminal into which a combined signal which is amplified by the second amplifier and the third amplifier is inputted, and a fourth terminal connected to a terminating resistor.

10 14. A low reflection limiter comprising:

a limiter diode; and

a resistor having one end, which is connected to the limiter diode, and another end, which is grounded.

15 15. A low reflection limiter comprising:

a plurality of series connection circuits, each of which comprises a limiter diode and a resistor connected in series to the limiter diode and having one end grounded, and at least one quarter-wavelength line provided between adjacent two series connection circuits of said plurality of series connection circuits.

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16. A low reflection limiter comprising:

a directional coupler having a first terminal to which the receiving signal is inputted, a second terminal, a third terminal and a fourth terminal;

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a terminating resistor connected to the second terminal of

the directional coupler;

a first limiter diode connected to the third terminal of the directional coupler; and

a second limiter diode connected to the fourth terminal of
5 the directional coupler.